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FACSIMILE COVER SHEET

To: Commissioner for Patents for Examiner Linh Black Group Art Unit 2163	Facsimile No. 571/273-4106
From: April Morgan Legal Assistant to Gerald H. Glanzman	No. of Pages Including Cover Sheet: ## 4
Enclosed herewith: <ul style="list-style-type: none">• Memorandum regarding Examiner's Amendment	
Re: Application Serial No. 10/777,719 Attorney Docket No. AUS920031018US1	
Date: July 18, 2007	
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MEMORANDUM

To: Examiner Linh Black (By Facsimile: 571-273-4106)
Group Art Unit 2163

From: Gerald H. Glanzman
Reg. No. 25,035

Re: Application Serial No. 10/777,719
Docket No. AUS920031018US1

Dear Ms. Black,

As we discussed this morning, below are proposed amendments to independent claims 1, 12, 18 and 24 in U.S. Patent Application Serial No. 10/777,719 to incorporate subject matter currently recited in dependent claim 7. You are authorized to make these changes by Examiner's Amendment and to cancel claim 7. It is respectfully requested that this memo be placed of record in the file of the application.

If you have any questions or believe the claims should be amended differently please give me a call.

Applicants have agreed to the amending of claims 1, 12, 18 and 24 and the cancellation of claim 7 from further consideration in this application. Applicants are not conceding in this application that those claims are not patentable over the art cited by the Examiner, as the claim amendments are only for facilitating expeditious prosecution of allowable claims noted by the Examiner. Applicants respectfully reserve the right to pursue these and other claims in one or more continuations and/or divisional patent applications.

1. (Currently Amended) A method in a data processing system for managing data in a file system, the method comprising:

detecting a request to modify a data block in the file system;
responsive to detecting the request:

writing metadata describing the data block in the file system into a snapshot image, wherein the snapshot image is updated to maintain a consistent block-level image of the file system from a point-in-time when the snapshot was created, and wherein the writing further comprises writing an in-use state of snapshot map entries for a snapshot map group to the snapshot image prior to any before-image data blocks referenced by the

snapshot map group being written to the snapshot image; and

copying data for the data block in the file system to the snapshot image to further update the snapshot image; and

modifying the data block in the file system after copying of the data in the data block to the snapshot image has occurred, wherein the snapshot image is usable to return the file system to a state prior to modifying the data block in the file system.

12. (Currently Amended) A data processing system for managing data in a file system, the data processing system comprising:

detecting means for detecting a request to modify a data block in the file system;
responsive to detecting the request:

writing means for writing metadata describing the data block in the file system into a snapshot image, wherein the snapshot image is updated to maintain a consistent block-level image of the file system from a point-in-time when the snapshot was created, and wherein the writing means further comprises means for writing an in-use state of snapshot map entries for a snapshot map group to the snapshot image prior to any before-image data blocks referenced by the snapshot map group being written to the snapshot image; and

copying means for copying data for the data block in the file system to the snapshot image to further update the snapshot image; and

modifying means for modifying the data block in the file system after copying of the data in the data block to the snapshot image has occurred, wherein the snapshot image is usable to return the file system to a state prior to modifying the data block in the file system.

18. (Currently Amended) A computer program product in a computer readable medium for managing data in a file system in a data processing system, the computer program product comprising:

first instructions for detecting a request to modify a data block in the file system;
responsive to detecting the request:

second instructions for writing metadata describing the data block in the file system into a snapshot image, wherein the snapshot image is updated to maintain a consistent block-level image of the file system from a point-in-time when the snapshot was created, and wherein the second instructions further comprises instructions for writing an in-use state of snapshot map entries for a snapshot map group to the snapshot

image prior to any before-image data blocks referenced by the snapshot map group being written to the snapshot image; and

third instructions for copying data for the data block in the file system to the snapshot image to further update the snapshot image; and

fourth instructions for modifying the data block in the file system after copying of the data in the data block to the snapshot image has occurred, wherein the snapshot image is usable to return the file system to a state prior to modifying the data block in the file system.

24. (Currently Amended) A data processing system comprising:

a bus system;

a memory connected to the bus system, wherein the memory includes a set of instructions; and

a processing unit connected to the bus system, wherein the processing unit executes a set of instructions to detect a request to modify a data block in the file system; write metadata describing the data block in the file system into a snapshot image, in response to detecting the request, wherein the snapshot image is updated to maintain a consistent block-level image of the file system from a point-in-time when the snapshot was created, and wherein the write further comprises write an in-use state of snapshot map entries for a snapshot map group to the snapshot image prior to any before-image data blocks referenced by the snapshot map group being written to the snapshot image; copy data for the data block in the file system to the snapshot image to further update the snapshot image in response to detecting the request; and modify the data block in the file system after copying of the data in the data block to the snapshot image has occurred, wherein the snapshot image is usable to return the file system to a state prior to modifying the data block in the file system.